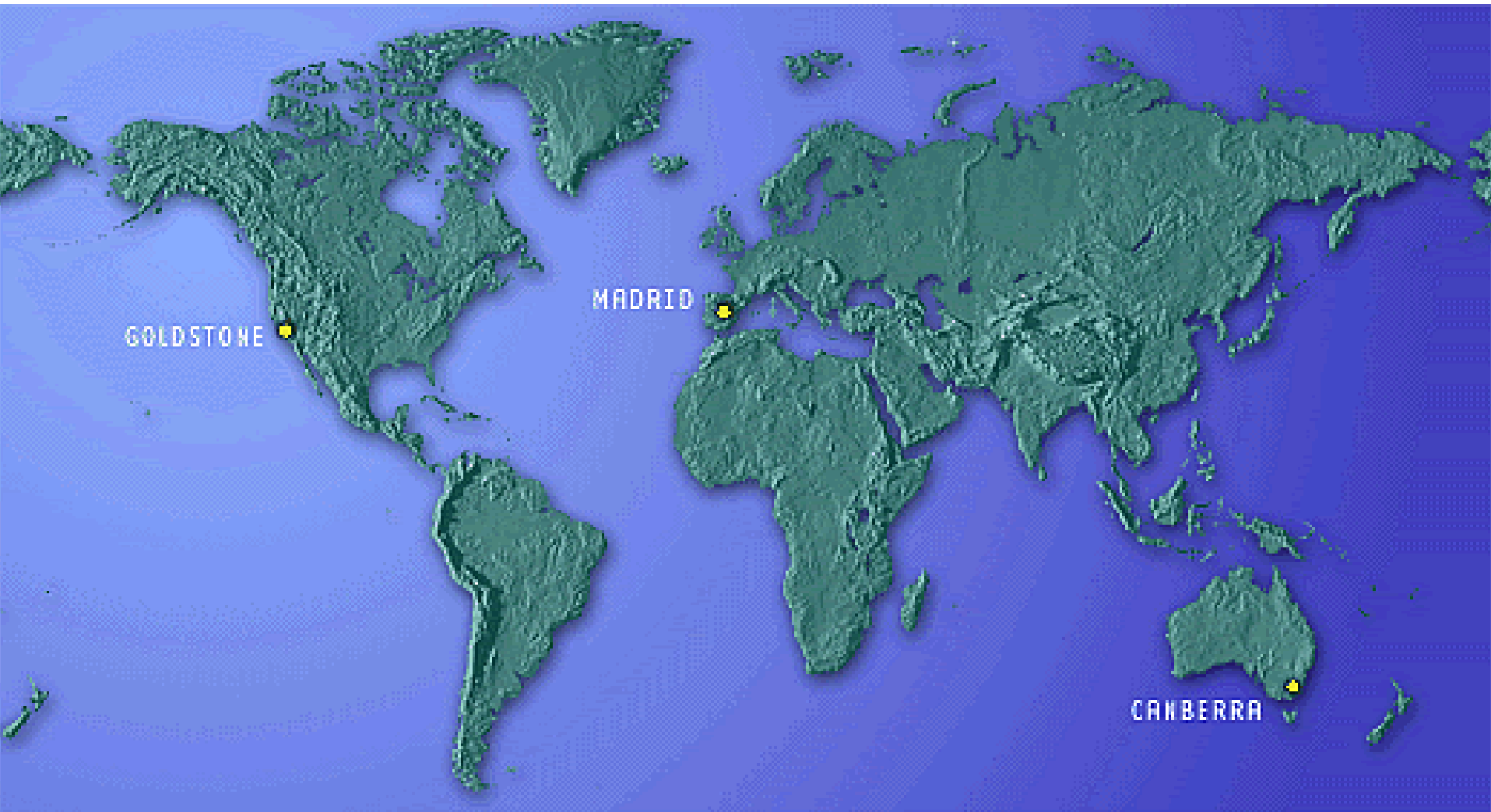


DSN Antenna Downtime Status and Forecast



<http://rapweb.jpl.nasa.gov/planning>

Antenna Downtime Status and Forecast

The following downtimes for 2008.

- ❑ DSS-34 Ka-Band Phase 2 downtime beginning in week 29 has scheduled an additional 4 weeks to complete the task and will end in week 43.
 - ❑ Engineering Demos have been scheduled starting in week 39 (22 September)
 - ❑ Cassini has requested a non-committed support in week 42.
- ❑ DSS-55 downtime for Paint Repair is scheduled for September, weeks 36 - 41.
 - ❑ Weeks 39-41 the antenna is available from 1800-0800.
- ❑ DSS-54 downtime for ACQ Aid Installation is scheduled for October, week 42 of 2008.
 - ❑ The Installation is scheduled for 4 days October 13 - 16.
 - ❑ The second 4 days is postponed due to Chandrayaan launch and will be TBD.
 - ❑ The NOPE will schedule TERRA supports for testing after the second downtime
 - ❑ Will LNA swap occur during the second period?
- ❑ DSS-24 TXR Motor Generator Repair
 - ❑ This 24 hour downtime will be scheduled for November 3, 2008 just prior to the DSS-24 Ka-Band Phase 2 downtime
- ❑ DSS-24 Ka-Band Phase 2 downtime is scheduled to start in week 45 of 2008 through week 5 of 2009.
 - ❑ This downtime will start November 4 to allow for a 24 hour downtime for TXR Motor Generator repair on November 3, 2008
 - ❑ Antenna calibrations will be during the 1st half of January and demo tracks during the 2nd half of January.
 - ❑ This downtime will end January 31, 2009 of week 5.
- ❑ DSS-14 Grouting is scheduled November, weeks 47 & 48.
 - ❑ This grouting period will run in parallel with the DSS-24 downtime for Ka-Band Phase 2 in weeks 47 & 48, DOYs 326/0315-331/0000.
 - ❑ Request to add a 20kW Transmitter Upgrade NIB to DSS-14 Bearing Regrout in November.
 - ❑ This is a transmitter controller upgrade. The antenna will be in receive only during swing & mid shift.

Antenna Downtime Status and Forecast

Downtime request for 2008

The following proposals for downtime are requested by GDSCC.

- ❑ Complex preventative maintenance “G91 2400V Switchgear Electrical Maintenance”
 - ❑ Has been scheduled for week 40, DOY 275/1730-0330.
 - ❑ This maintenance was completed.
- ❑ Complex preventative maintenance “Apollo Tie-Line Electrical Maintenance”
 - ❑ A proposal is out for week 51 DOY 352 1600-0600.
 - ❑ Some projects have not concurred as of yet.
- ❑ Complex preventative maintenance “Echo Tie-Line Electrical Maintenance” has been moved to start after the Apollo Tie-Line Electrical Maintenance.
 - ❑ This can be moved to early CY 2009, proposed for week 7
- ❑ Complex corrective maintenance “G86/G81 Transfer Switch Electrical Maintenance”
 - ❑ Has been moved to start NET week 4 of 2009.
- ❑ Requesting 60 eight-hour daylight time for DSS-14 Fall Arrest Downtime.
 - ❑ Proposing to schedule this downtime during Life Extension scheduled for 2009.

Additional time is being requested – these request have been postponed the NET 2009, week 26.

- ❑ Two 8-hour complex downtimes for cutover, final connection and testing of the new G86 Substation, Mars Site.
- ❑ Four 14-hour periods between July 2009 and January 2010 for testing of G86 Substation, Mars Site.

Antenna Downtime Status and Forecast

The following proposals for antenna downtimes are requested.

- ❑ **MDSCC Annual Antenna Inspections at DSS-54 and -55, -63, -65, as follows:**
 - ❑ **These were rescheduled for September. All inspections have been completed.**
 - ❑ DSS-65 scheduled for DOY 261/0600-1400 week 38
 - ❑ DSS-63 scheduled for DOY 262/0600-1400 week 38
 - ❑ DSS-54 scheduled for DOY 263/0600-0630 & 0830-1355 week 38
 - ❑ DSS-55 scheduled for DOY 266/0600/1400 week 39
 - ❑ DSS-63 scheduled for DOY 268/0600/1530 week 39

- ❑ **HEF Transmitter Manifold Installation at DSS-15, -45 and -65 between July, 2008 and June 2009 not to be scheduled concurrently with DSS-15 being scheduled first. This is a 4 day downtime period.**
 - ❑ This installation has been put on hold.

- ❑ **Request 7 consecutive days for HEF Servo – Installation and test of Rev D board either at DSS-15 or DSS-45.**
 - ❑ Put on hold at this time, but can be scheduled after the DSS-24 Ka-Band Phase 2 and as late as September 2009

Antenna Downtime Status and Forecast

The following proposals for antenna downtimes are requested.
Information from the requester is inserted in **RED**.

- ❑ **Request Complex-TLAN downtime for SPC-10, -40, -60 for NMC S/W Integration and Test**
 - ❑ Request 8 hours between 7/27/2009 and 11/06/2009
- ❑ **Request SPC-10 8-hour complex downtime to install NMC S/W.**
 - ❑ Request 09/08/2009 and 10/05/2009
 - ❑ The intent is to test our software/hardware under operational conditions. The software engineers will be physically at the site monitoring and assessing the software. For this test, we need to conduct it at GDSCC since we will be present at the site.
- ❑ **Request complex downtime for NMC S/W Acceptance test for SPC-10, -40, -60.**
 - ❑ Request 8 hour blocks from 11/7/2009 through 02/05/2010
- ❑ **Request NMC S/W Soak Testing**
 - ❑ Request 8 hours of downtime for SPC-10 in mid February 2010, SPC-40 in mid March 2010 and SPC-60 in mid April 2010.
 - ❑ The soak testing will start with SPC-10 first, followed by either SPC-40 or SPC-60 depending on the available schedule.
 - ❑ For SOAK, we plan to install software/hardware and conduct a set of tests before turning the NMC back to ops. We can use the DSN maintenance windows

Antenna Downtime Status and Forecast

The following downtimes are for 2009 – 2010

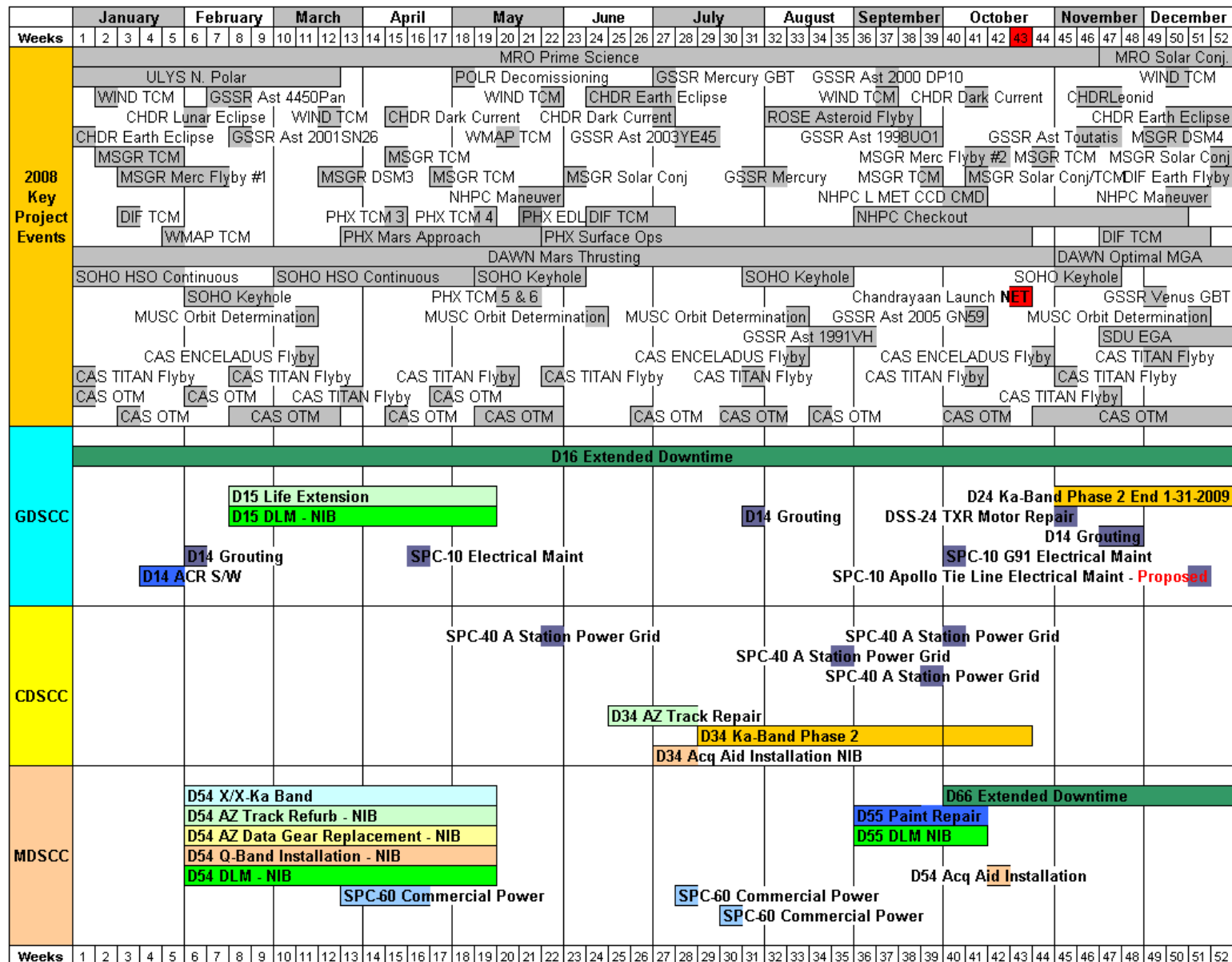
- ❑ DSS-43 downtime for Life Extension and Depot Level Maintenance will start January 5, 2009 and end April 12, 2009, weeks 2 – 15
- ❑ DSS-63 downtime for Life Extension has been will start May 4, and end May 31, 2009, weeks 19 - 22.
 - ❑ Additional time will be added to the 70m Power and HBA Upgrades in 2011 to replace time given up for DSS-54 Ka-Band Phase 2.
- ❑ DSS-24 downtime for painting will be moved to another time frame due to Kepler launch date which has moved back to March 5.
 - ❑ Original schedule was May/June of 2009. LRO/LCROSS launch NET 4/24/09 will cause this downtime to be moved.
 - ❑ There will be complete 24/7 downtime for the first 3 weeks and dayshift downtime (1400-0200) for the remaining weeks.
 - ❑ Depot Level Maintenance will be scheduled during this downtime.
- ❑ DSS-14 Grouting is planned for week 17 (requesting 5 days minimum of 3) of 2009.
 - ❑ Cassini has requested that this downtime start at the end of the week and go into week 18.
 - ❑ With the shortening of DSS-63 Life Extension, will look for another grouting period prior to DSS-14 scheduled downtime in October of 2009
- ❑ DSS-54 Ka-Band Phase 2 is planned for June 1 through August 16 of 2009 weeks 23 - 33.
 - ❑ Analysis has concluded that supports using DSS-54 can be supported by DSS-63.
- ❑ DSS-14 downtime for Life Extension and Depot Level Maintenance will start October 3, 2009 and end May 2, 2010 weeks 40-17
- ❑ DSS-34 downtime for Azimuth Track Replacement has been proposed for week 5 of 2010, local summer.
 - ❑ It is proposed to start February 1, through April 11, 2010, weeks 5 - 14
 - ❑ This was moved for a Cassini requested support.

Antenna Downtime Status and Forecast

The following downtimes are for 2009 – 2010

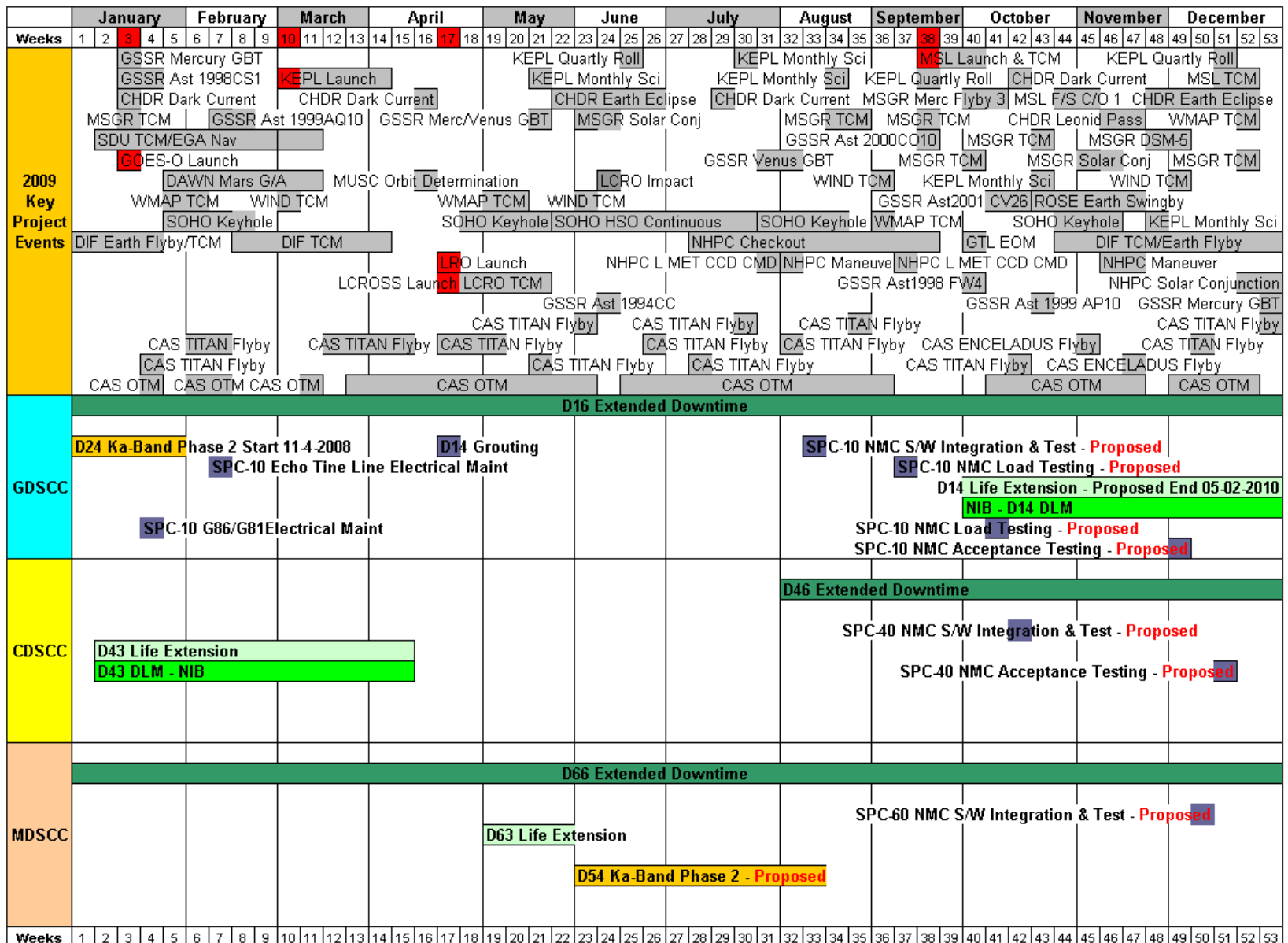
- ❑ DSS-65 downtime for Life Extension Elevation has been proposed for weeks 31 - 41 in 2010.
- ❑ As a result of the reduction of downtime for DSS-43 & DSS-63 in 2008 & 2009, it is requested to recover that time in 2010, local spring, summer or fall after DSS-14 RTS.
 - ❑ DSS-43 is proposed for November 2010 thru February 2011 after EPOXI encounter.
 - ❑ DSS-63 is proposed for April 4, through September 4 of 2011 weeks 14 – 34, just after Messenger MOI.
- ❑ DSS-15 downtime for Pintle Bearing is scheduled for May 3, through June 27, 2010, weeks 18 - 25.
 - ❑ DSS-15 Elevation Gearbox Replacement will be scheduled during weeks 18 & 19 of the Pintle Bearing downtime.

Antenna Downtime Status and Forecast 2008



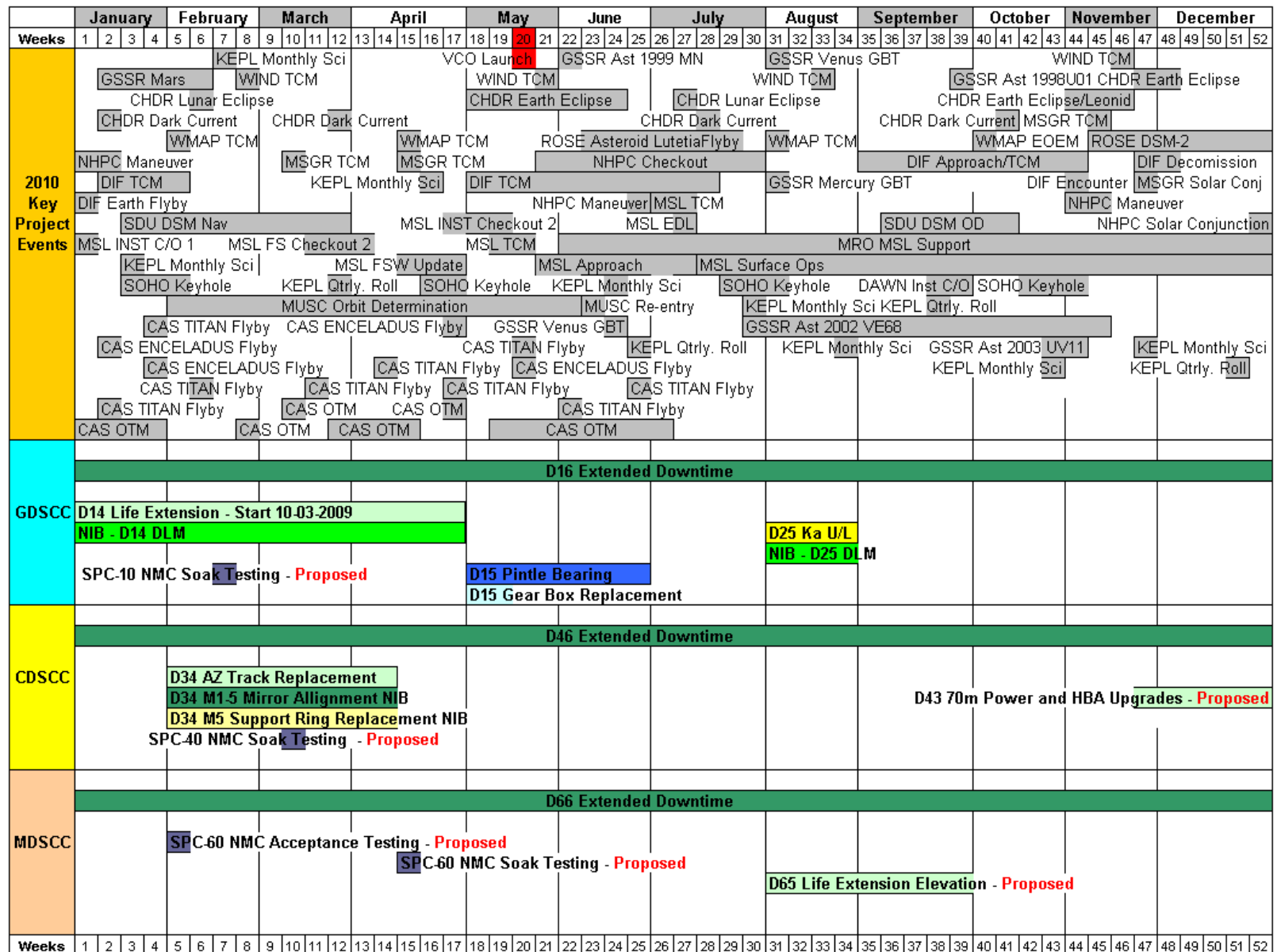
Revised: October 6, 2008

Antenna Downtime Status and Forecast 2009



Revised: October 6, 2008

Antenna Downtime Status and Forecast 2010



Revised: October 6, 2008

Antenna Downtime Status and Forecast 2011

	January			February			March			April			May			June			July			August			September			October			November			December																		
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2011 Key Project Events					SDU Tempel Enc																				GRAIL Launch/TCM				GSSR Asteroid 2000 YA																							
	SDU Approach								SDU Decommission																JUNO Launch & TCM				JUNO TCM				JUNO HV Checkout																			
									DAWN Instrument CO				DAWN Vesta Approach												DAWN Vesta Orbit																											
	CHDR Dark Current												CHDR Earth Eclipse				CHDR Dark Current				DAWN Vesta Arrival				CHDR Dark Current				CHDR Leonid																							
	KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.																							
									KEPL Qtrly. Roll								KEPL Qtrly. Roll				KEPL Qtrly. Roll				KEPL Qtrly. Roll																											
	SOHO Keyhole								SOHO Keyhole								SOHO Keyhole								SOHO Keyhole				SOHO Keyhole																							
					MSGR TCM				MSGR MOI												MSGR TCM								MSGR TCM																							
									MSGR Solar Conjunction								MSGR TCM								MSGR TCM				MSGR TCM																							
					MSGR TCM				MSGR TCM																KEPLMonthly Sci.				KEPLMonthly Sci.																							
	NHPC Maneuver								NHPC Checkout				NHPC Checkout												NHPC Maneuver				NHPC Maneuver																							
	ROSE DSM-2				ROSE DSM Entry																								NHPC Solar Conjunction																							
	WIND TCM								WIND TCM								WIND TCM								WIND TCM																											
	GDS	D16 Extended Downtime																																																		
CDS	D46 Extended Downtime																																																			
	D43 70m Power and HBA Upgrades - Proposed																																																			
MDS	D66 Extended Downtime																																																			
	D63 70m Power and HBA Upgrades - Proposed																																																			
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

Revised: October 6, 2008

Antenna Downtime Status and Forecast 2012

	January				February				March				April				May				June				July				August				September				October				November				December							
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2012 Key Project Events	DAWN Vesta Orbit				MSGR EOPM																												SOHO EOEM																			
	DAWN Vesta Depart																								DAWN Vesta Thrust																											
	WIND TCM												WIND TCM												WIND TCM								WIND TCM																			
					KEPL Monthly Sci.				KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Qtrly. Roll								KEPL Monthly Sci.				KEPL Monthly Sci.																							
					KEPL Monthly Sci.												KEPL Monthly Sci.				KEPL Monthly Sci.								KEPL EOEM																							

Antenna Downtime Status and Forecast

DSN Resource Implementation Planning Matrix by Subnet

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2
			Down	Up	Down	Up	Down	Up	
40	DSS-46	26M*	✓	✓	N/A	N/A	N/A	N/A	N/A
60	DSS-66	26M*	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	01/18/09
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	10/25/08
60	DSS-54	34B1	✓	✓	✓	✓	04/15/08	N/A	12/31/10
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	08/01/10	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
60	DSS-55	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	N/A
40	DSS-45	34HEF	✓	07/31/08	✓	✓	N/A	N/A	N/A
60	DSS-65	34HEF	✓	07/31/08	✓	✓	N/A	N/A	N/A
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	N/A
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A
N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Changed As of: 07/22/08 ✓ ✓ ✓ = Capability Recently Exists ✓ = Capability Exists * = To Be Decommissioned									